



Northern Everglades and Estuaries Protection Program

WRAC New Member Orientation
January 25, 2010

Temperince Morgan, Director
Federal and State Policy Division

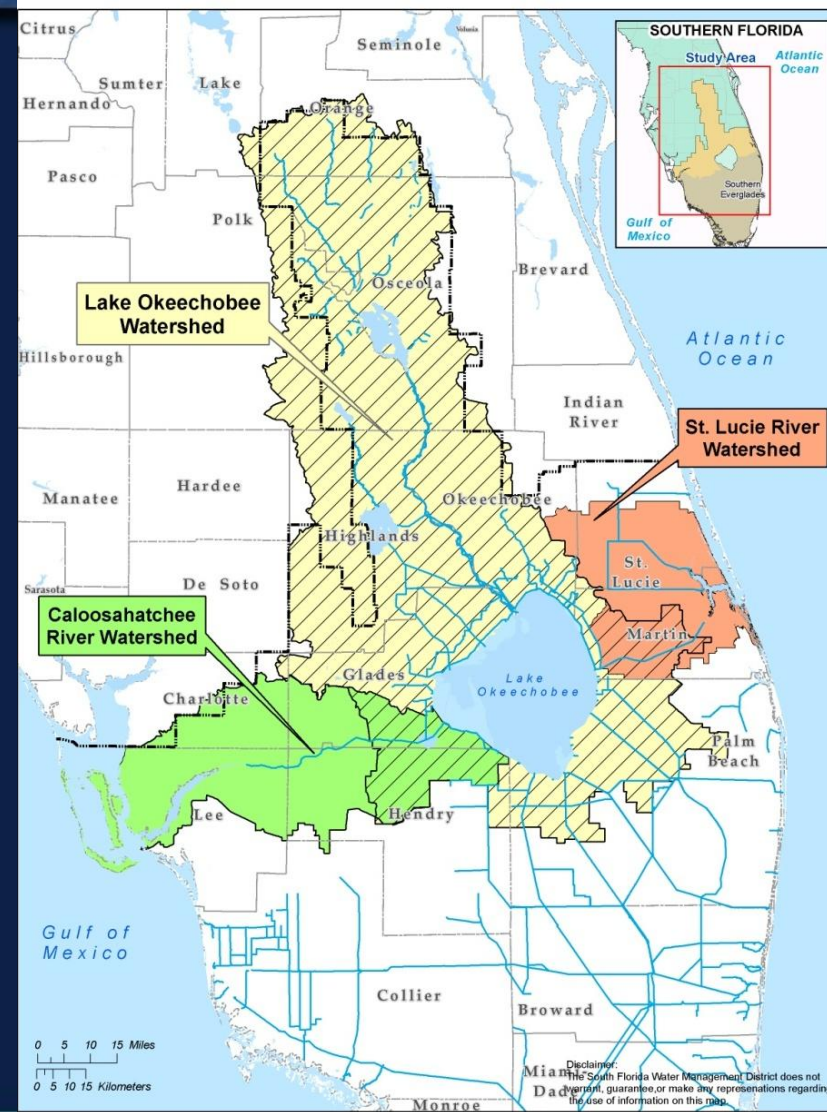
sfwmd.gov





Northern Everglades and Estuaries 2007 Legislation

- Recognizes that Lake Okeechobee, Caloosahatchee, and St. Lucie watersheds are critical resources of the state
- Identifies the need for a watershed-based approach to restoring and protecting these watersheds
- Requires development of Watershed Protection Plans for each of the three Northern Everglades watersheds
 - Water quality and storage needs





Northern Everglades and Estuaries Specific Requirements



- Builds on and augments restoration plans currently under way
- Establishes deadlines for plan development
 - Lake Okeechobee - Feb 1, 2008
 - Caloosahatchee - Jan 1, 2009
 - St. Lucie - Jan 1, 2009
- Requires Annual Reports and Triennial Plan Updates



Watershed Protection Plan Elements



- **Pollutant Control Program**
- **Construction Project**
- **Research and Water Quality Monitoring Program**



Plan Development Process

- **Developed all three Protection Plans through public planning process**
 - **Coordinating Agencies (SFWMD, FDEP and FDACS)**
 - **Lee, Martin, and other affected counties and municipalities**
 - **Working Team**
- **All plans delivered to Legislature on time and now being implemented**
- **Regular updates through WRAC, Interagency, and other public meetings**



Pollutant Control Program





Pollutant Control Program

- **Implementation of agricultural and urban Best Management Practices (BMPs)**
- **Revisions to regulatory programs**
 - **Environmental Resource Permit (ERP) Program**
 - **Statewide Stormwater Rule - Water Quality (FDEP)**
 - **Northern Everglades ERP Basin Rule - Water Quantity (SFWMD)**
 - **Chapter 40E-61 Source Control Program- Water Quality (SFWMD)**



Pollutant Control Program

- **Environmental Resource Permit (ERP) Program**
 - **Statewide Stormwater Rule - Water Quality (FDEP)**
 - Draft rule by Feb 2009
 - Rule adoption scheduled for July 2010
 - **Northern Everglades ERP Basin Rule - Water Quantity (SFWMD)**
 - Investigating use of existing rules to implement pre vs post annual discharge volume measure
 - Can move forward with rule adoption by end of 2010 if necessary



Pollutant Control Program

- **Chapter 40E-61 Source Control Program - Water Quality (SFWMD)**
 - **Lake Okeechobee (phosphorus)**
 - Program already exists
 - Being expanded to encompass larger geographic area and incorporate new refinements consistent with NEEPP legislation
 - Rule adoption anticipated in Fall 2010
 - **Caloosahatchee and St. Lucie (phosphorus and nitrogen)**
 - No existing program; new program and rule development required
 - Rule adoption anticipated in Fall 2012



Pollutant Control Program

- Dairy remediation
- Wetland restoration
- Regulation of other sources -
 - Wastewater residuals
 - Septage
 - Manure
- Other regulatory programs



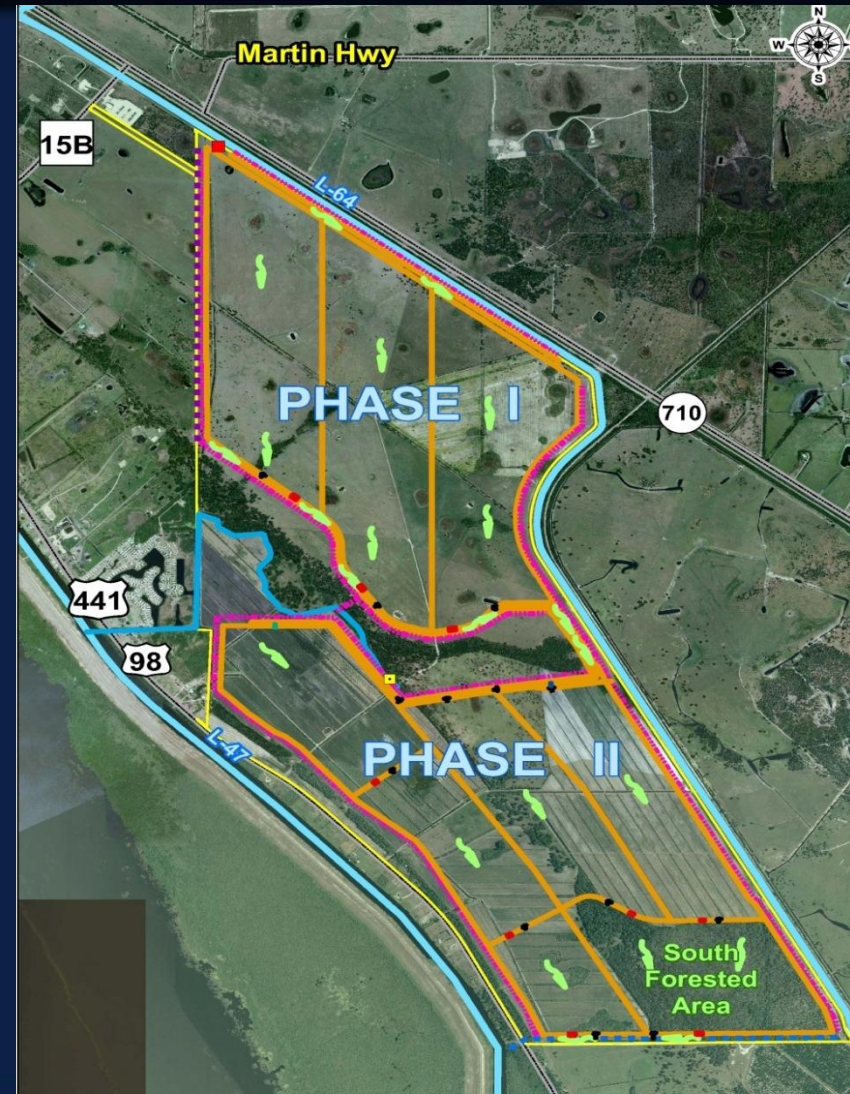
Construction Project





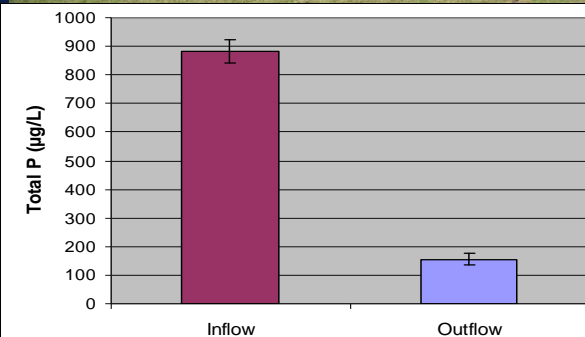
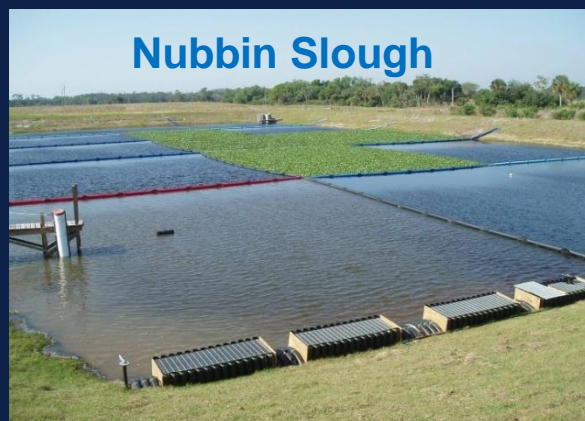
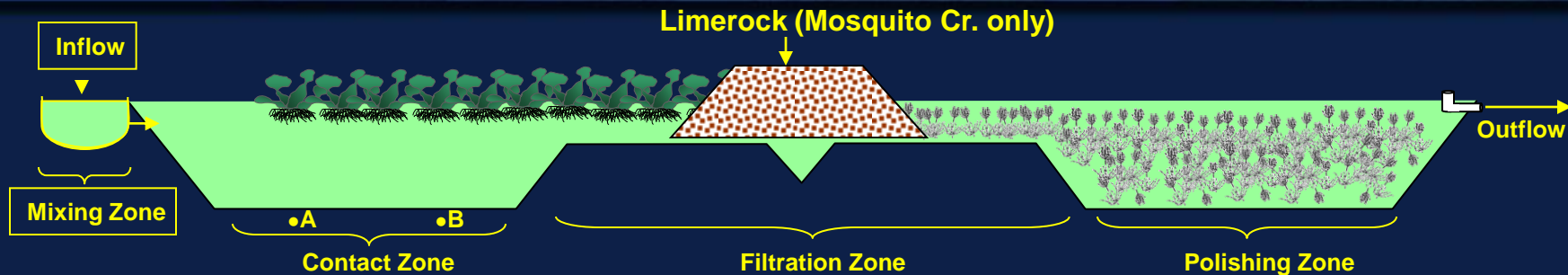
Construction Project - Okeechobee Lakeside Ranch STA

- Project is designed in two phases:
 - Phase 1: STA-North, S-650 pump station and canal improvements
 - Phase 2: STA-South and S-191A pump station
- Phase I construction is under way
- Phase II design is under way; Construction is contingent on additional funding





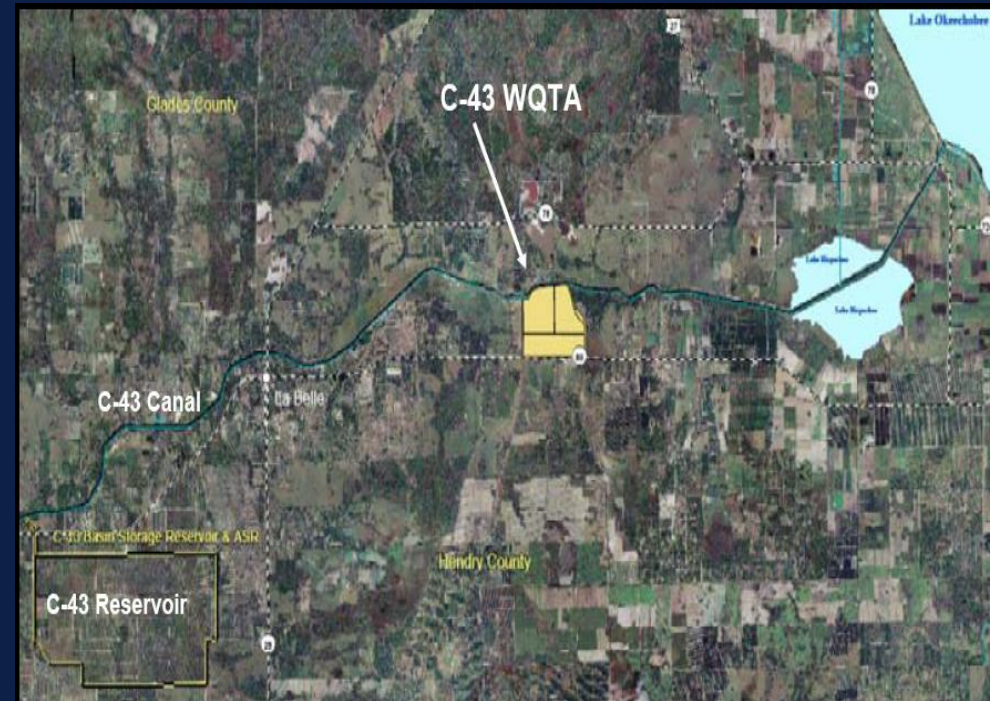
Construction Project - Okeechobee Hybrid Wetland Treatment Technology





Construction Project – Caloosahatchee C-43 Water Quality Treatment and Testing Facility

- Objective: Develop, design and build a testing facility to provide total nitrogen treatment
 - Site assessments and topographic surveys complete
 - Technologies review and plan development under way





Construction Project - Caloosahatchee **Powell Creek Algal Turf Scrubber**

- Pilot construction completed and operation begun in October 2008
- Data collection under way
 - Pilot unit is growing algae and generally working as expected
- Next steps - Completion of monitoring and final report by end of January 2010





Construction Project - St. Lucie **Local Cost-Share Projects**

- **Manatee Pocket Dredging:** Removes accumulated muck for water quality and habitat improvement
- **Manatee Creek Basin Water Quality Retrofit:** Provides treatment of uncontrolled discharges to the Manatee Pocket from the Manatee Creek
- **North River Shores Vacuum Sewer System:** Enhances water quality in the North Fork of the St. Lucie River by eliminating nutrient loading from septic systems
- **Old Palm City Phase III Water Quality Retrofit:** Improves water quality through developing a neighborhood stormwater quality management system



Construction Project

- CERP C-43 Reservoir (Caloosahatchee)
- CERP IRL-S Project (St. Lucie)
- CERP Lake Okeechobee Watershed Project (Okeechobee)
- Chemical Treatment Study (initial focus Okeechobee)
- Fisheating Creek Feasibility Study (Okeechobee)
- Numerous other water quality and storage projects



Research and Water Quality Monitoring





Research and Water Quality Monitoring - Okeechobee

- Lake Okeechobee (LO) in-Lake Assessment Projects
- Sub-basin Monitoring Network (USGS)
- Exotics and Nuisance Species Control
- LO Water Quality Model
- LO Environment Model





Research and Water Quality Monitoring - Caloosahatchee and St. Lucie

- **Optimized estuarine and watershed monitoring networks**
- **Research projects**
 - **Nutrient budget**
 - **Dissolved oxygen dynamics**
 - **Salinity zones**
- **Modeling Efforts**
 - **Integrated watershed and estuarine hydrology and water quality models**

<https://my.sfwmd.gov/northerneverglades>

Questions

